

**U.S. Department of Interior
Bureau of Land Management
Roseburg District, Oregon**

Environmental Assessment for the Swiftwater Field Office

FY 2001 Commercial Thinnings (Timothy Ridge and Bonanza)

EA No. OR - 104 - 01 - 02

The Swiftwater Field Office proposes to do a commercial thinning harvest on approximately 226 acres of second growth forest in the Calapooya Watershed located in Section 17 of T24S R3W, and Section 17 of T25S R4W, W.M. This project is within the Matrix Land Use Allocation and is designed to help meet the Roseburg District's annual harvest commitment.

Acronyms Used:

| | | |
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| ACS | - | Aquatic Conservation |
| BA | - | Biological Assessment |
| BO | - | Biological Opinion |
| BLM | - | Bureau of Land Management |
| BMP | - | Best Management Practices |
| CWD | - | Coarse Woody Debris |
| EA | - | Environmental Assessment |
| FONSI | - | Finding Of No Significant Impact |
| FSEIS (SEIS) | - | Final Supplemental Environmental Impact Statement |
| FWS | - | U.S. Fish and Wildlife Service |
| GFMA | - | General Forest Management Area |
| LUA | - | Land Use Allocation |
| NEPA | - | National Environmental Protection Act |
| NFP | - | Northwest Forest Plan |
| NMFS | - | National Marine Fisheries Service |
| PDF | - | Project Design Features |
| RMP | - | Resources Management Plan |
| ROD | - | Record Of Decision (used only to refer to the NFP ROD) |
| S&G | - | Standards & Guidelines |
| T&E | - | Threatened or Endangered |
| WAU | - | Watershed Analysis Unit |

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INTRODUCTION

This Environmental Assessment (EA) has been prepared for the proposed **FY 2001 Commercial Thinnings**. An EA is a site specific analysis of potential environmental impacts that could result with the implementation of a proposed action. The EA assists the Agency in project planning and insuring compliance with the National Environmental Protection Act (NEPA) and in making a determination as to whether any "significant" impacts could result from analyzed actions. "Significance" as defined by NEPA is found in regulation 40 CFR 1508.27. An EA provides evidence for determining whether to prepare an Environmental Impact Statement (EIS) or "Finding of No Significant Impact" (FONSI). The FONSI is a document that briefly presents the reasons why implementation of the proposed action will not result in "significant" environmental impacts (effects) beyond those already addressed in the Roseburg District's *Final Environmental Impact Statement* (FEIS).

A Decision Document would be completed after the FONSI is signed to document the decision, however, Forest Management Regulation 43 CFR 5003.2 states that "[w]hen a decision is made to conduct an advertised timber sale, the notice of such sale shall constitute the decision document." This notice would be placed in *The News Review*, a daily newspaper of general circulation in Roseburg, Oregon and constitute a decision document with authority to implement the proposed action.

I. PURPOSE OF AND NEED FOR ACTION

This section provides a general overview of the proposed action. Included are: the need for the action, purpose of the action, a general description and objectives of the proposal, and conformance with existing land use plans.

A. Need for Action

The BLM has a need to implement the *Roseburg District Record of Decision and Resources Management Plan* (RMP). The RMP "responds to dual needs: the need for forest habitat and the need for forest products" (RMP, pg. 15). "The need for forest products . . . is . . . for a sustainable supply of timber and other forest products that will help maintain the stability of local and regional economies . . . on a predictable and long-term basis". The BLM also needs to offer for sale "Commercial thinnings ... after developing stands reach a combination of stem diameter and surplus volume to permit an entry that is economical" (RMP, pg. 149). Silvicultural stand exams indicate that the stands identified in this project would benefit from a thinning at this time.

1. For the Matrix portion:

- a. "Produce a sustainable supply of timber and other forest commodities " and "Provide connectivity ... between late-successional reserves" (RMP, pg. 33).
- b. Improve stand health by reducing the excess stocking in the forest stand to increase the growth and vigor of the remaining individual trees (RMP, pg. 149).

2. Implement ecosystem management as outlined in the ROD and RMP.

- S avoid damage to riparian ecosystems and meet the objectives of the "Aquatic Conservation Strategy" (S&G, pg. B-11; RMP pg. 19).
- S "Provide habitat for a variety of organisms associated with both late successional and younger forests." (RMP pg. 33).
- S maintain "ecologically valuable structural components such as down logs, snags and large trees" (RMP pg. 33).
- S improve and/or maintain soil productivity (RMP pg. 35).
- S "Maintain or enhance the fisheries potential of the streams . . . " (RMP pg. 40).
- S protect, manage and conserve all special status and Supplemental Environmental Impact Statement special attention species habitat (RMP pg. 41).

B. Purpose of Action

The purpose of the action described in this EA is to offer the **Timothy Ridge** and **Bonanza** Timber Sales for auction in fiscal year 2001 or later. This proposal would help meet the Roseburg District's annual harvest commitment or allowable sale quantity.

C. Description of the Proposal

The Swiftwater Field Office of the Bureau of Land Management (BLM) proposes to harvest timber in the Calapooya Watershed located in Section 17 of T24S R3W, and Section 17 of T25S R4W, W.M. (see maps, Appendix A through C). Approximately 226 acres were analyzed for potential harvest activities. New road construction and renovation or improvement of existing roads would also occur. Section II (pg. 3) of this EA provides a more detailed description of the Proposed Action Alternative.

D. Conformance with Existing Land Use Plans

The Proposed Action and all alternatives were developed to be in conformance with the *Final - Roseburg District Proposed Resource Management Plan / Environmental Impact Statement* (PRMP/EIS) dated October 1994, its associated *Roseburg District Record of Decision and Resources Management Plan* (RMP) dated June 2, 1995, and the *Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigations Measures Standards and Guidelines* dated January 2001. The RMP was written to be consistent with the *Final Supplemental Environmental Impact Statement on Management of Habitat for Late-Successional and Old Growth Forest Related Species Within the Range of the Northern Spotted Owl* (FSEIS) dated Feb. 1994, and its associated *Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl* (ROD) and *Standards and Guidelines for Management of Habitat for Late-Successional and Old Growth Related Species Within the Range of the Northern Spotted Owl* (S&G's) dated April 13, 1994; generally referred to as the "Northwest Forest Plan" (NFP). The ROD establishes management direction consisting of ".... extensive standards and guidelines including land allocations, that comprise a comprehensive ecosystem management strategy" (ROD pg. 1).

The ROD (pg. 6) divides the federal land base into seven land use allocations (LUA) or categories. This project is within the "Matrix" LUA. "Stands in the matrix can be managed for timber and other commodity production, and to perform an important role in maintaining biodiversity" (S&G, pg. B-6) by providing for biological legacies (snags, large woody debris and retention trees) that bridge past and future forests. The RMP further classifies the Matrix into two categories: the "General Forest Management Area" (GFMA); which are lands available for timber harvest and "Connectivity / Diversity Blocks" which are lands that are available for timber harvest and also provide connectivity between Late-Successional Reserves and Riparian Reserve. The Timothy Ridge and Bonanza timber sales are both entirely within the GFMA LUA.

II. ALTERNATIVES INCLUDING THE PREFERRED ALTERNATIVE

This section describes the No Action and Proposed Action alternatives, and any alternatives considered but eliminated from detailed analysis. These alternatives represent a range of reasonable potential actions that would meet the Purpose and Need. This section also discusses specific design features that would be implemented under the action alternatives.

A. The No Action Alternative

The No Action Alternative is required by NEPA to provide a baseline for the comparison of the alternatives. This alternative represents the existing condition. If this alternative were selected there would be no harvesting of timber within the bounds of the project area. Harvest would, however, occur at another location within Matrix lands in order to meet harvest commitments identified in the RMP (pg. 7 and 60). Selection of this alternative would not constitute a decision to reallocate these lands to non-commodity uses. Future harvesting in this area would not be precluded and could be analyzed under a subsequent EA. There would be no entry for the purpose of enhancing conditions of late-successional forest ecosystems and applying silvicultural practices to meet ACS objectives at this time.

B. The Proposed Action Alternative

Implementation of the Proposed Action Alternative would result in the harvest of approximately 1.02 MCF (thousand cubic feet) or 0.6 MMBF (million board feet), from the Timothy Ridge Commercial Thinning; and approximately 2.72 MCF (thousand cubic feet) or 1.6 MMBF (million board feet), from the Bonanza Commercial Thinning, of the Roseburg District's FY 2001 harvest commitment of 7.0 MMCF (45 MMBF). A small amount of additional timber could potentially be included as a modification to this project. These additions would be limited to removal of individual trees or small groups of trees that are blown down, injured from logging, are a safety hazard, or trees needed to facilitate the Proposed Action (ex. guyline and tailhold trees, cable yarding corridor trees, trees around helicopter landings, or trees within the road construction prism). Harvest activities would occur on one unit called the Timothy Ridge CT for 46 acres and one unit called Bonanza CT for 109 acres of commercial thinning and a total of 3 acres of road right-of-way clearcut. Other activities would include: temporary road construction, road renovation, and roadside brushing of noxious weeds.

Approximately 0.2 miles (one spur) for Timothy Ridge CT and approximately 0.5 miles (three spurs) for Bonanza CT of **temporary road construction** (roads built, used and decommissioned the same season) would occur on government land and no road construction on private land for a total of 0.7 miles. Approximately 6.0 miles of BLM and private road would have **road renovation** (restoring the road back to its original design). **Road decommissioning** - "... road segment ... closed to vehicles on a long-term basis, but may be used again in the future. " (Western Oregon Transportation Management Plan [TMO], pg. 15) would occur on 0.7 miles of BLM road.

Timber harvest would consist of commercial thinning. **Commercial thinning** is designed to reduce the density of the forest stand in order to maintain stand vigor and increase wood quality, to promote increased growth on the remaining trees and recover wood fiber that would ordinarily be lost through natural mortality (RMP, pg. 149).

The Proposed Action would require a mix of skyline cable logging (approximately 155 acres or 99%) and ground based (tractor) logging (approximately 1 acres or 1%) of temporary road right-of-way. The Authorized Officer (Contract Administrator) may determine that additional isolated minor ground based logging would be necessary (ex. removal of guyline anchor trees, isolated portions of units, etc.) **Firewood cutting and salvaging** of logging debris (slash) could occur in landing cull decks and near roads. The burning of **landing cull decks and slash piles** could occur as a means of reducing fire hazard.

C. Project Design Features as part of the Action Alternative

This section describes mitigating measures (measures designed to avoid, minimize or rectify impacts on resources [40 CFR 1508.20]) that would be incorporated with the implementation of the action alternatives. Project design features (PDF's) are site specific measures, restrictions, requirements or physical structures included in the design of a project in order to reduce adverse environmental impacts. Additionally, the RMP (Appendix D, pg. 129) lists "Best Management Practices" (BMP's) and the ROD lists "Standards and Guidelines" (S&G's). BMP's are measures designed to protect water quality and soil productivity. S&G's are "... the rules and limits governing actions, and the principles specifying the environmental conditions or levels to be achieved and maintained." (S&G, pg. A-6). The proposed action includes the following measures that would be included as part of the action alternative:

1. **To meet the objectives of the "Aquatic Conservation Strategy (ACS)" (RMP, pg. 19):**
 - a. **Riparian Reserves (Component #1)** were established. Riparian Reserves consist of lands incorporating permanently flowing (perennial) and seasonally flowing (intermittent) streams, the extent of unstable and potentially unstable areas that may directly impact streams, and wetlands. There would be no entry into any Riparian Reserves. The RMP (pg. 24) specifies Riparian Reserve widths equal to the height of two site potential trees on each side of fish bearing streams and one site potential tree on each side of perennial or intermittent nonfish bearing streams. Data has been analyzed from District inventory plots and the height of a site potential tree for the

Calapooya Creek watershed has been determined to be the equivalent of 180 ft. therefore, Riparian Reserve boundaries would be approximately 180 ft. slope distance from the edge of non-fish bearing streams. No fish bearing streams were found in the project area adjacent to any Unit. No wetlands were found within the project area.

1). Streambank stability and water temperature would be protected by maintaining the RMP prescribed Riparian Reserves along all streams. Approximately 58 acres were removed from the proposed units and placed in the Riparian Reserve LUA due to unmapped streams.

2). Riparian habitat would be protected from logging damage by directionally felling trees that are within 100' of the Riparian Reserve away from the Riparian Reserve and yarding logs away from or parallel to the streams (i.e. logs would not be yarded across streams). No logging or road building would take place within the Riparian Reserves.

3). No unstable or potentially unstable ground met the criterion to be included in the Riparian Reserve.

b. **Key Watersheds (ACS Component #2)** were established "as refugia ... for maintaining and recovering habitat for at-risk stocks of anadromous salmonids and resident fish species [RMP, pg. 20]." This project is not in a Key Watershed.

c. **Watershed Analysis (ACS Component #3)** for the Calapooya Watershed was used in this analysis and is available for public review at the Roseburg District office.

d. **Watershed Restoration (ACS Component #4)** is not included as part of this project.

2. **To minimize soil erosion as a source of sedimentation to streams and to minimize soil productivity loss from soil compaction, loss of slope stability or loss of soil duff layer:**

a. **Measures to limit soil erosion and sedimentation from roads** would consist of: (1) Maintaining or improving existing roads (Road No. 21-3-16.0; 24-3-16.0, 21.0; and 25-4-8.1) to fix drainage and erosion problems. This would consist of maintaining existing culverts, installing additional culverts, and surfacing roads with crushed rock where deficient. (2) Building, using and decommissioning temporary roads in the same operating season (i.e. no over-wintering of bare erodible subgrade). When logging is completed, the roadbed would be subsoiled (by Roseburg district maintenance crews), water barred, blocked and seeded with native species or a sterile hybrid mix depending on availability. (3) Restricting road renovation and log hauling on unsurfaced roads to the dry season (normally May 15 to Oct. 15), however, operations would be suspended during periods of heavy precipitation. This season could be adjusted if conditions are such that no environmental damage would occur (i.e. the dry season extending beyond Oct. 15).

b. **Measures to limit soil erosion and sedimentation from logging** would require skyline yarding where cable logging is specified. This method limits ground disturbance by requiring partial suspension during yarding (i.e., the use of a logging system that "suspends" the front end of the log

during in-haul to the landing, thereby lessening the "plowing" action that disturbs the soil). In some limited, isolated areas partial suspension may not be physically possible due to terrain or lateral yarding. Excessive soil furrowing would be hand waterbarred.

c. **Measures to limit soil compaction** (RMP, pg. 37) would limit road right-of-way clearing to the dry season (May 15 to Oct. 15) when soils are least compatible, however, operations would be suspended during periods of heavy precipitation if resource damage would occur. This season could be adjusted if conditions are such that no resource damage would occur (i.e., the dry season extending beyond Oct. 15).

d. **A measure to protect slope stability** would consist of locating new temporary roads in stable locations and with proper drainage structures.

3. To provide wildlife habitat components:

a. Future nesting and roosting habitat for cavity dwellers would be provided by reserving all existing hard or soft snags (at least 20" in diameter and 20 ft. in height) and old growth remnant trees that still remain from previous logging, except in the case of safety. Note: Any snag deemed as hazardous to worker safety could be felled at the discretion of the operator and the Sales Administrator. Such trees would be reserved and left in place as large woody debris (LWD).

b. All existing Course Woody Debris (CWD) that is at least 16" in diameter and 16 ft. in length would be reserved (RMP, pg. 38), except in the case of safety. This is in the form of blowdown trees and logs remaining from previous logging.

4. To protect air quality:

Any burning of landing piles would have an approved "Burn Plan" and be conducted under the requirements of the Oregon Smoke Management Plan and done in a manner consistent with the requirements of the Clean Air Act.

5. To protect and enhance stand diversity:

a. Mature and old growth remnant trees in the thinning units would be retained to the greatest extent possible as well as occasional defective and deformed trees that could provide future snags and nesting habitat. Such trees located within the road rights-of-way would be removed when necessary.

b. Snags and CWD would be reserved as described in paragraph three above.

6. To prevent and report accidental spills of petroleum products or other hazardous materials:

Hazardous materials (particularly petroleum products) would be stored in durable containers and located so that any accidental spill would be contained. All landing trash and logging materials would be removed. Accidental spills or discovery of the dumping of any hazardous materials would be reported to the Sale Administrator and the procedures outlined in the "Roseburg District Hazardous Materials (HAZMAT) Emergency Response Contingency Plan" would be followed.

7. To contain and/or reduce the spread of noxious weeds:

Stipulations would be incorporated into the logging contract to prevent and/or control the spread of noxious weeds. This would include the cleaning of logging equipment prior to entry on BLM lands (BLM Manual 9015 - Integrated Weed Management). In addition to these mitigations, the BLM would arrange (i.e.; district contract; volunteer pulling; etc.) for some roadside brushing prior to seed set.

8. To protect the residual stand and promote stand health:

a. Douglas-fir predominates the stand. Incense-cedar, western hemlock, western red cedar, white fir, Pacific yew, sugar pine and ponderosa pine can also be found here. As much as possible, trees that would most likely survive logging and overall improve the stand condition and health would be selected for retention. The stand would be thinned from below (i.e. removal of the smallest diameter trees first) which would remove suppressed trees and smaller trees that would result in less stand damage during felling.

b. Felling and yarding would be done in a manner to protect the residual stand. No felling and yarding in the cable areas would be permitted from April 15 through July 15 when the sap is up in the trees and damage due to bark slippage could occur. This date could be adjusted based on local conditions (e.g. earlier or later than normal loose bark period).

c. Yarding systems would be designed to match yarder and cable size to the size of the timber in order to minimize logging damage. Corridors for yarding would be pre-designated and approved by the Sale Administrator.

9. To protect Special Status and SEIS Special Attention Plants and Animals:

a. Special Attention (Survey and Manage (S & M)) plant and animal sites would be protected according to established management recommendations (RMP, pg. 42).

b. If, during implementation of the proposed action, any Special Status (threatened or endangered, proposed threatened or endangered (T & E), candidate, State listed, Bureau sensitive or Bureau assessment) species are found, evaluation for the appropriate type of mitigation needed for each species would be done. Stipulations would be placed in the contract to halt operations if any of these Special Status plants or animals are found to allow time to determine adequate protective measures before operations could resume.

c. Seasonal restrictions to prohibit logging during the nesting season (March 1 to September 30 [falling] and March 1 to June 30 [yarding]) would be applied to Timothy Ridge if surveys indicate that a northern spotted owl (NSO) is nesting in the adjacent NSO activity center.

10. To protect cultural resources:

Stipulations would be placed in the contract to halt operations and evaluate the appropriate type of mitigation needed to provide adequate protection; if any objects of cultural value (e.g. historical or prehistorical ruins, graves, fossils or artifacts) are found during the implementation of the proposed action.

D. Alternatives Considered but not Analyzed in Detail

There were no other alternatives considered during the formulation of this project.

III. AFFECTED ENVIRONMENT

This section describes the existing environment and forms a baseline for comparison of the effects created by the alternatives under consideration. This section does not attempt to describe in detail every resource within the proposed project area that could be impacted but only those resources which could be significantly impacted. Appendix F (Analysis File) contains Specialist's Reports with supporting information and greater detail for this analysis.

This project lies within the Oregon Western Cascades Physiographic Province. The FSEIS describes the affected environment for this province on page 3&4-19. The Roseburg District Proposed Resource Management Plan/Environmental Impact Statement (PRMP/EIS, pp. 3-3 through 3-71) provides a detailed description of BLM administered lands on the Roseburg District. A further description can also be found in the Calapooya Watershed Analysis.

The proposed project areas are not known to be used by, or disproportionately used by, Native Americans, minorities or low-income populations for specific cultural activities, or at greater rates than the general population. According to 1990 Census data less than four percent of the population of Douglas County was classified with minority status. It is estimated that approximately 15% of the county is below the poverty level (Frewing-Runyon, 1999).

A. General Setting

Stand Description - The predominant conifer species is Douglas-fir, which acts as a pioneer after a significant disturbance event such as fire or timber harvest. Conifer species in association include incense-cedar, western hemlock, western red cedar, white fir, and Pacific yew. Sugar and ponderosa pine are also common in the Calapooya 5th field watershed. Salal, Oregon grape and sword fern are common on the forest floor. The plant association best describing these areas is a western hemlock or white fir with salal and Oregon grape.

Site Description -This project occurs within Timothy Creek, and Foster Creek drainages. These drainages are within the Calapooya Watershed which covers approximately 157,000 acres. Current landscape patterns include natural stands that are the result of fire, managed stands established following timber harvest, and non-forested agricultural and pasture lands. Three major highways and several small towns are located within the WAU.

Timothy Ridge is in a transition zone between the Coast Range Province and the western Cascade Mountains. Bonanza is in the Coast Range Province. On the gentle to moderate slopes, the soils are generally moderately well to well drained and moderately deep to very deep (20 to greater than 60 inches to bedrock) with loamy surfaces and with loamy (Timothy Ridge) to clayey (Bonanza) subsoils. Bedrock is soft to somewhat hard. On the very steep slopes, shallow to deep soils (5 to 60 inches to bedrock) with loamy surfaces and subsoils over hard bedrock are typical. The Timothy Ridge subsoils

have relatively weak moist cohesion. Seven very steep acres, in the Bonanza CT, are fragile soils with potential for shallow landslides and erosion. When appropriate mitigating measures are used, the landslide potential is low, and therefore, the fragile soils are classified as suitable for timber harvest (FGR). Bonanza CT also has a high density of old skid trails, many of them fashioned like old roadbeds. Most heavy residual compaction is in scattered patches and short trail segments (see Soil's Report, Appendix F).

B. Affected Resources

Botany - No special status plants were observed in the project area. The Survey and Manage (S&M) species *Helvella maculata* was found on Bonanza CT. No other S & M species were observed in the project area. Vascular plant surveys will be completed by August 1, 2001 and appropriate modifications, mitigations, and protections will be taken as necessary, for any special status species found within the project area. There are considerable infestations of scotch broom, a noxious weed, in portions of the project area (See Botany Rpts., Appendix F).

Cultural Resources - No cultural resources were found in the project area as the result of surveys.

Fisheries - There are no fish-bearing streams in the proposed project area (See Fisheries Rpt., appendix F). The Oregon coast coho salmon has been designated as a threatened species under ESA.

Hydrology -

Timothy Ridge: The unit is entirely in first order watersheds in upper to mid slope positions. The first order streams draining these watersheds empty directly into lower Coon Creek, a fourth order stream, to lower Timothy Creek, a third order stream and directly to Calapooya Creek, a third of a mile to the southeast. Only one of the first order stream touches the unit (Its inception point begins at the unit boundary.)

Bonanza: Five first order streams with full Riparian Reserves extend into the Bonanza unit. They funnel down to two second order streams which enter Calapooya Creek 0.6 miles to the north of the unit. They drain 82 percent of the unit. The typical first order stream gradients inside the units riparian reserves are moderate (15 to 30 percent) and have moderately confined channels. The remaining 18 percent of the unit (southeastern part) drains into a second order, high gradient stream system that empties into lower Foster Creek.

Along a number of the first order stream segments inside the unit, stream banks and channels had been altered by past high density ground-based operations. These include bladed skid trails and primitive haul roads angling down stream banks and crossing streams with log culverts and stream channels being filled with earth to accommodate tractor yarding along the bottom. Some of the crossings have partially or totally washed out. The streams have formed young shallow channels in the compacted fills as they slowly cut towards new baselines.

Wildlife - Federally Threatened and Endangered (T&E) species known to occur in the Roseburg District include the northern spotted owl (*Strix occidentalis caurina*), marbled murrelet (*Brachyramphus marmoratus*), bald eagle (*Haliaeetus leucocephalus*), Columbian white-tailed deer (*Odocoileus virginianus*), Canada lynx (*Lynx canadensis*) and Fender's blue butterfly (*Icaricia icarioides fenderi*). There is one spotted owl site within 1.2 miles of the Timothy Ridge CT sale area (IDNO 0355B). Owl site IDNO 0355B is protected with a Residual Habitat Area. This project does not contain any designated Critical Habitat for the NSO. Critical Habitat is a specific geographical area specified by the US Fish and Wildlife Service (FWS) in Recovery Plans as containing habitat essential for the conservation of a Threatened and Endangered species. This sale occurs more than 50 miles from the Coast and therefore is not considered to contain suitable marbled murrelet habitat. No known bald eagle nests or known winter roosting areas are within 0.25 miles of the sale areas. There are no known bald eagle nests which could be affected by disturbance above ambient noise levels within 0.25 miles of any of the project areas. The remaining T&E species do not occur in the project area.

Survey and Manage Species One hundred and fifty-eight (158) acres of potential habitat (red tree vole and other Survey and Manage species) are contained within the proposed sale units of both CTs. No active red tree vole (RTV) sites were found at Timothy Ridge CT. Three active RTV sites were found at Bonanza CT. Management Recommendations would be followed for these sites. A reduction of the Bonanza unit size occurred during the planning process. No dominant, codominant, or intermediate trees within 180 feet of an active known nest tree would be removed. Additionally, a 10 acre minimum protected area would be established for the active RTV site, which may be combined with Riparian Reserves. Bonanza CT resulted in a total of 66 acres of RTV buffer in the unit.

IV. ENVIRONMENTAL CONSEQUENCES

This section provides the evidence and analytical basis for the comparisons of the alternatives. The probable environmental consequences (impacts, effects) to the human environment that each alternative would have on selected resources are described. This section is organized by the alternatives and the effects on the key issue(s) identified in Appendix D, as well as the selected resources. Analysis considers the direct impacts (effects caused by the action and occurring at the same place and time), indirect impacts (effects caused by the action and occurring later in time or farther removed in distance) and cumulative impacts (effects of the action when added to other past, present and reasonably foreseeable future actions) on the resource values. Appendix F (Analysis File) contains additional supporting information for this analysis. The EIS and FSEIS analyzes the environmental consequences in a broader context. This EA does not attempt to reanalyze impacts that have already been analyzed in these documents but rather to identify the particular site specific impacts that could reasonably occur. Environmental effects to the "Critical Elements of the Human Environment" is analyzed in Appendix D and E.

Some irreversible and irretrievable commitment of resources would result from the implementation of this project. An irreversible commitment is a commitment that cannot be reversed whereas an irretrievable commitment is a commitment that is lost for a period of time. An irreversible commitment of petroleum fuels for logging and timber hauling as well as the loss of rock from quarries for crushed rock used in the renovation of the road system would result from the proposed action.

When encountering a gap in information, the question implicit in the Council on Environmental Quality regulations on incomplete and unavailable information was posed: Is this information “essential to a reasoned choice among the alternatives”? (40 CFR 1502.22(a)). While additional information would often add precision to estimates or better specify a relationship, the basic data and central relationships are sufficiently well established that any new information would not likely reverse or nullify understood relationships. Although new information would be welcome, no missing information was determined as essential for the decision maker to make a reasoned choice among the alternatives.

A. No Action Alternative

This alternative would not meet the Purpose and Need of the RMP (pg. 15) or this EA (pg. 1) objective of producing forest commodities that would contribute to the local economy. Only normal programmed maintenance would be performed.

The stands would continue to differentiate in time through growth and mortality. Mortality predicted by the model is due to competition between trees for growing space. The process of self thinning occurs only after most of the dominant trees are under competitive stress. At about age 120 the stands are extremely dense and composed of trees with small live crowns. Tall spindly trees are less likely to stand up in high winds and more likely to break under snow loads. Trees that have developed over long periods of competitive stress are slow to respond to improved growing conditions and may never attain potential growth rates. Modeling shows that between 35 and 192 trees per acre would die. This is far more down wood and snags than would be normally found in a natural stand condition. This amount of dead wood greatly increases the risk of stand damage as a result of fire. The Silvicultural Prescription (Appendix F) provides a more detailed stand description.

Botany - Direct effects are those actions that cause direct mortality of S & M and SEIS Special Attention Plants such as ground disturbance or alteration of microclimatic conditions favorable to the sustained viability of plants. No direct impacts are expected due to this alternative. Indirect effects include possible spread of noxious weeds, however, these areas are included in the district-wide weed control program.

Fisheries - Direct effects to fisheries are those actions that cause direct mortality, such as accidental chemical spills and direct disturbance of redds. Generally, direct impacts occur from work within or adjacent to fish bearing streams. Indirect effects include increased sediment and water temperature, altered stream flows and large woody inputs.

Hydrology - Direct effects are those actions that cause direct changes to the stream channel morphology, hydraulic geometry, or water quality. Indirect effects are actions that indirectly effect hydrology and water quality including changes in road densities that route runoff and transporting sediment, streamside shading, and large woody debris recruitment. Adopting a No Action Alternative would have no direct effects on water quality and stream hydrology. Stream temperature, water quality and hydrologic processes would continue at existing rates and levels. Vegetation would continue to slowly develop over the long-term toward old growth structure to provide large woody debris

recruitment. High levels of shade and bank stability have generally been established. Drainage improvements from the replacement of three ditch relief culverts of the 24-3-16.0 haul road out of Timothy Ridge would not occur at this time.

Soils - Direct effects to the soils resource consists of those actions that cause a reduction in soil productivity such as compaction due to road construction or ground-based logging, soil loss through erosion, displacement of soil through mechanical means (logging and road building) and alteration of the soil's nutrient, physical and biological properties through slash burning. The primary indirect effects is any harvest-related landslides that might occur as a result of the action alternative. Harvest related impacts would not occur under this alternative. The potential for landslides on the steep FGR slope of Bonanza (seven acres) would continue to be low until a future regeneration harvest or fire creates moderate potentials. Old compaction and exposed subsoil from past ground-based operations would continue to slowly heal.

Wildlife - Direct effects to wildlife consists of direct mortality to species. No project related mortality would occur. Indirect effects include the alteration of habitat that would affect species. No project related habitat alterations would occur.

B. Proposed Action Alternative

Because the Proposed Action Alternative in this EA proposes to commercially thin timber stands that are 50 to 60 years of age there would be no change in the amount or percentage of late-successional type forests on Federal lands within the Calapooya Watershed.

Botany - This project would have no direct effects on three listed S & M Species (*Otidea onotica*), found in the Bonanza project area, because there are no management recommendations or protections required for them. The *Helvella maculata* site would have a 50' radius buffer protecting its microhabitat.

The project would result in a modification of microclimatic conditions within the forest stands, but the change would be unquantifiable. Likely changes would include: increased solar radiation, windspeed, ambient air temperature; decreased relative humidity and antecedent soil moisture (Chen 1995, Brosnoff *et al.* 1997). Temporary road construction and incidental ground-based yarding would likely increase the potential of noxious weed infestation into the proposed project area. Disturbance from ground-based yarding along designated trails would be mitigated by reducing the number of equipment passes as much as possible.

Post-disturbance recovery of understory vegetation indirect effects would likely result in an overall increase in the composition, diversity, and viability of vascular plants (Thysell 2000), largely because of the increased sunlight reaching the forest floor. It is likely to result in an increase in suitable habitat for non-vascular plants. Retained large diameter remnant overstory trees would likely function as legacy attributes (Lesica *et al.* 1991). Retention of the majority of understory hardwoods would likely contribute to the diversity of non-vascular plants within the proposed project area (Neitlich 1996).

Fisheries - No direct effects to fish are expected. Indirect effects to aquatic species and habitats are expected to be inconsequential. No riparian vegetation would be altered, therefore, stream temperature and large woody inputs would remain at existing rates and levels. No ground disturbing actions would occur within areas that have the potential to transmit sediment or effects to an active stream channel. No new permanent roads would be constructed. Removal of the understory trees, outside riparian reserves through thinning would result in minor increases in runoff. The amounts of additional runoff would be small and unquantifiable, and the effects to stream flow would be negligible.

Hydrology - No direct effects result from this project. Sediment into streams would not result from spur construction, use and decommissioning because of their ridgetop and stable upper slope positions outside of the Riparian Reserves. The amount of flow intercepted by the spurs would be relatively low because of their ridgetop/high slope positions and avoidance of steep cross slopes. Waterbarring the decommissioned spurs would improve the hydrologic function over the disturbed state and approach that of the natural state. The combined effect of spurs and thinning on peak flows would likely be very small and short-term based on current knowledge.

The indirect effects of in-unit erosion resulting from cable yarding would generally be very low and all sediment produced would filter into the forest floor. In Timothy Ridge, the downhill cable yarding roads and disturbed road cutbanks from downhill yarding would yield some sediment into the 24-3-16.0 ditchline, but a ditch relief culvert would direct all of it to the forest floor. A temporary source of sediment into streams could occur where the haul roads cross streams (five crossings in Timothy Ridge CT and two crossings in Bonanza CT). The amount of this sediment would be small given the condition of the rocked surfaces and high level of dry season operations.

No change in stream temperature, large woody debris, water pH, dissolved oxygen, or other chemical parameters would likely occur under the Action Alternative. In the long-term the recruitment of large woody debris would be delayed within the unthinned Riparian Reserves.

Soils - Direct effects of upgrading and using existing roads would result in the replacement of three culverts along the haul route to Timothy Ridge (BLM controlled portions). One replacement would reduce the undermining of the road due to cannon culvert outlet flow. The western switchbacks near spurs 1 and 2, of Bonanza CT, would be redesigned. About 400 feet of existing ridgetop road would be upgraded in Bonanza CT as spur 2. New spur construction would be built to the minimum RMP standards. Fragile soils would be avoided and use best management practices.

All construction would be on stable ground reducing impacts to a low level. Directing drainage from spur 3 of Bonanza CT to the southeastern slope on the opposite side of the ridge would reduce translational landslide risk. All construction would be outside of riparian reserves. All new construction would be left in an “erosion-resistant” condition by establishing cross drains.

The indirect effects of sediment reaching streams attributed to the dry season haul would be small given the condition of the rock surfacing and the number of stream crossings. For the Timothy Ridge haul there would be five creek crossings including Coon Creek before reaching paved roads. For the

Bonanza haul there would be two stream crossings before reaching paved roads. All sedimentation from the road spurs would filter out into the forest floor during construction, haul and post decommissioning.

Erosion caused by harvest operations would be very low and temporary. Landslide potential on the very steep Bonanza slopes would be low because of the large percentage of residual trees retained, dry season operations, and at least one-end suspension.

Wildlife - The direct effects of harvest activities occurring within the range of one known spotted owl activity center (IDNO 0355B) would be the post harvest reduction of nesting, roosting, foraging habitat by one acre and dispersal habitat by 46 acres. SEIS Special Attention Species - A temporary, short-term loss of 112 acres of potential RTV nesting, foraging, and dispersal habitat would occur until canopy closure in 10 to 15 years. There would be 158 acres of habitat modification, decreasing foraging habitat and occupancy for 11 species. No adverse impacts would occur relating to the marbled murrelet or American bald eagle (See Wildlife Rpt. for specific species, Appendix F.)

This action would result in the indirect effects of delaying canopy closure by 10-15 years, releasing existing advanced regeneration, and potentially accelerating development of the canopy. Creation of snags and down wood through mortality would be delayed as well as a loss of existing structural features. The short-term decrease in canopy would increase the risk of predation on the spotted owl. When the canopy does close the result would be larger, deeper canopies, thus providing better habitat conditions. There would be a temporary decrease in habitat quality until the shrub cover rebounds, increasing woody structure and improving stream/riparian conditions.

C. Cumulative Impacts Analysis

The following paragraph discusses the cumulative impacts (i.e. the incremental effects of the action when added to other past, present and foreseeable future actions). These impacts are described for federal lands in the FSEIS beginning on page 3&4-4 and throughout chapter 3&4 based on the resource affected. There has been a continued conversion of late seral and old-growth habitat on private, industrial forest lands to early seral stages. Current management strategies on most of this private land would preclude the development of older seral conditions in the future.

Botany - Following initial disturbance the Action Alternative would likely maintain and contribute to the restoration of the composition, diversity and viability of vascular and non-vascular plants associated with mature/late-successional forest stands at the site-specific and watershed level. The long-term loss of botanical viability and diversity due to roads would not occur since roads would be decommissioned.

Fisheries - No new permanent roads or clear-cut acres would be added to the watershed. Permanent federally controlled road miles are expected to stay the same in the future. The proposed action would not increase the amount of permanent road or clear-cut acres and is not expected to have long term negative effects to fisheries.

Hydrology - This action may result in an unquantifiable but small and temporary increase in average annual peak stream flows due to the removal of part of the forest canopy and a small temporary input of sediment into streams from the use of existing haul roads. They would be inconsequential at the fifth-field watershed scale. Hydrologic processes would recover and improve as the thinned stands mature. No increase in the miles of permanent road would occur under the Preferred Alternative. The Action Alternative would have no effect on temperature, dissolved oxygen and pH in Calapooya Creek because of the shade protection and sediment delivery prevention built into the design features.

Soils - The cumulative impacts would be inconsequential at the fifth-field watershed scale. Soil productivity loss, nearly all of which would be confined to the new spur construction, would be minor especially when considering that 20 percent of the spur disturbance would heal satisfactorily after subsoiling. The losses in soil productivity associated with these two sales would be offset by gains from slow healing processes over the much larger body of BLM surface that was harvested in the past in the Calapooya watershed. Most notable would be the healing of compaction and soil displacement in old ground-based harvest units. The amount of erosion and sedimentation would be very small in the short and long-term as a result of the action alternative at the fifth field scale.

Wildlife - Loss of late seral spotted owl, RTV, and other S & M species habitat on private land is expected to continue as the land is managed on a rotation of 60-80 years. Dispersal habitat is likely to be maintained, but at some lower level.

V. CONTACTS, CONSULTATIONS, AND PREPARERS

A. Agencies, Organizations, and Persons Consulted

The Agency is required by law to consult with the following federal and state agencies (40 CFR 1502.25):

1. Threatened and Endangered (T&E) Species Section 7 Consultation - The Endangered Species Act of 1973 (ESA) requires consultation to ensure that any action that an Agency authorizes, funds or carries out is not likely to jeopardize the existence of any listed species or destroy or adversely modify critical habitat.

a. The required ESA consultation for T&E wildlife species was accomplished with the **US Fish and Wildlife Service** (FWS) and a letter of concurrence is expected by May 30, 2001. The Biological Assessment (BA) concluded the proposed action is not likely to pose an adverse affect to the spotted owl, murrelet, or bald eagle, and is not likely to adversely modify spotted owl or murrelet critical habitat.

b. The required ESA consultation for T&E fisheries species was submitted to the **National Marine Fisheries Service** (NMFS) on May 24, 2001. The BA made the determination that this project would result in a "not likely to adversely affect" for the Oregon Coast coho salmon. A Letter of Concurrence is expected in mid-July.

2. **Cultural Resources Section 106 Consultation** - Consultation as required under section 106 of the National Historic Preservation Act with the **State Historical Preservation Office (SHPO)** was completed on October 25, 2000 with a "No Effect" determination.

B. Public Notification

1. Notification was provided to affected **Tribal Governments** (Confederated Tribes of the Coos, Lower Umpqua and Siuslaw; Grande Ronde; Siletz; and the Cow Creek Band of Umpqua Indians). No comments were received.

2. A letter was sent to nine **adjacent landowners**. No comments were received (see Appendix G - Public Contact).

3. The **general public** was notified via the *Roseburg District Planning Update* (Winter 2000) going to approximately 150 addressees. These addressees consist of members of the public that have expressed an interest in Roseburg District BLM projects. No comments were received.

4. Notification will also be provided to certain **State, County and local government** offices (see Appendix G - Public Contact).

5. A 30-day **public comment period** will be established for review of this EA. A Notice Of Availability will be published in the *News Review*. This EA and its associated documents will be sent to all parties who request them. If the decision is made to implement this project, a notice will be published in the *News Review*.

C. List of Preparers

| | |
|---------------|----------------------------------|
| Isaac Barner | Cultural Resources |
| Bruce Baumann | Layout Forester/Project Lead |
| Liz Berger | Wildlife |
| Kevin Cleary | Fuels Management |
| Dan Cressy | Soils/Hydrology |
| Craig Holt | Presale Forester |
| Mike Howard | Engineering Lead (Timothy Ridge) |
| Al James | Silviculture |
| Pete Howe | Engineering Lead (Bonanza) |
| Evan Olson | Botany (Timothy Ridge) |
| Garth Ross | Fisheries |
| Jeff Wall | EA Coordinator / EA Preparer |
| Ron Wickline | Botany (Bonanza) |

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CRITICAL ELEMENTS OF THE HUMAN ENVIRONMENT

The following elements of the human environment are subject to requirements specified in statute, regulation, or executive order. These resources or values are either not present or would not be affected by the proposed actions or alternatives, unless otherwise described in this EA. This negative declaration is documented below by individuals who assisted in the preparation of this analysis.





| Element | Responsible Position | Not Present | Not Affected | In Text | Initials | Date |
|---|--|-------------|--------------|---------|----------|---------|
| Air Quality | Fuels Management Specialist | | X | | KC | 5/15/01 |
| Areas of Critical Environmental Concern | Environmental Specialist | X | | | JW | 5/15/01 |
| Cultural Resources | Archeologist | X | | | MB | 5/16/01 |
| Environmental Justice | Environmental Specialist | | | X | JW | 5/15/01 |
| Farm Lands (prime or unique) | Soil Scientist | X | | | DCC | 5/15/01 |
| Flood Plains | Hydrologist | X | | | DCC | 5/15/01 |
| Invasive, Nonnative Species | Botanist | | | X | @ | 5/15/01 |
| Native American Religious Concerns | Environmental Specialist | X | | | JW | 5/15/01 |
| Threatened or Endangered Species (fish) | Fisheries Biologist | | | X | GER | 5/15/01 |
| Threatened or Endangered Species (plants) | Botanist | | | X | @ | 5/15/01 |
| Threatened or Endangered Species (wildlife) | Wildlife Biologist | | | X | WB | 5-15-01 |
| Hazardous/Solid Wastes | District Hazardous Materials Coordinator | | X | | BOZ | 5-21-01 |
| Water Quality Drinking/Ground Water | Hydrologist | | X | X | DCC | 5/15/01 |
| Wetlands/Riparian Zones | Hydrologist | | X | X | DCC | 5/15/01 |
| Wild and Scenic Rivers | Recreation Planner | X | | | DM | 5/15/01 |
| Wilderness | Recreation Planner | X | | | DM | 5/15/01 |

Appendix A

Vicinity Map

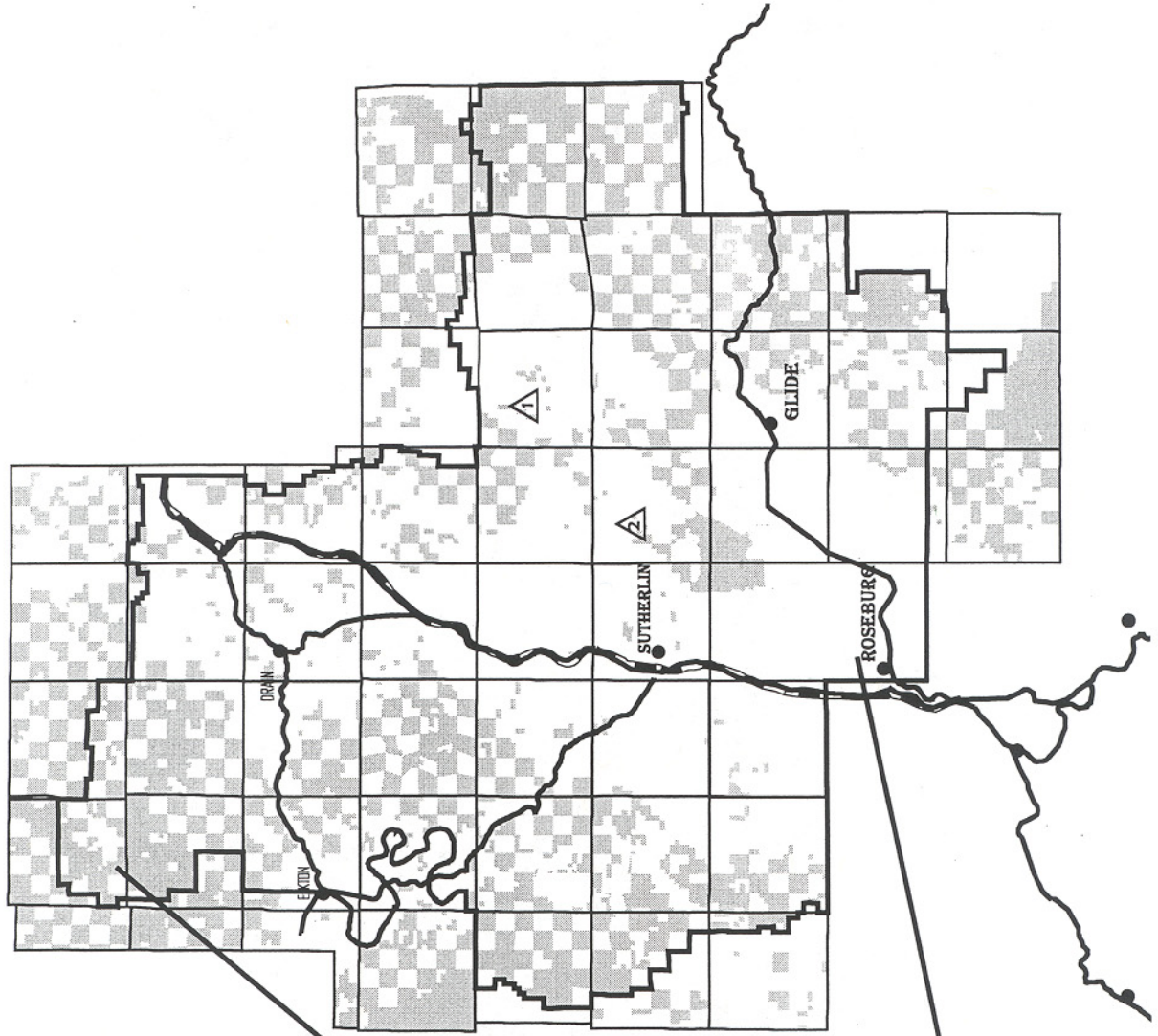
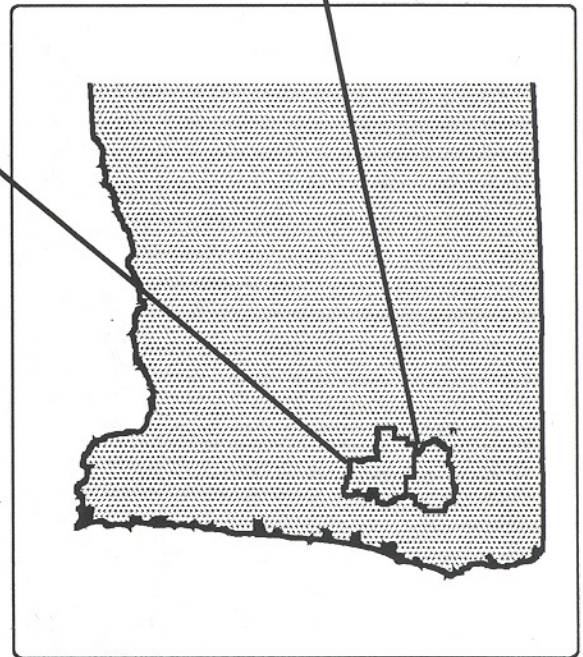
FY2001 Commercial Thinnings

Legend

-  Swiftwater Resource Area Boundary
-  Major Oregon Highways
-  Interstate 5
-  Towns

 **Timothy Ridge Commercial Thinning**

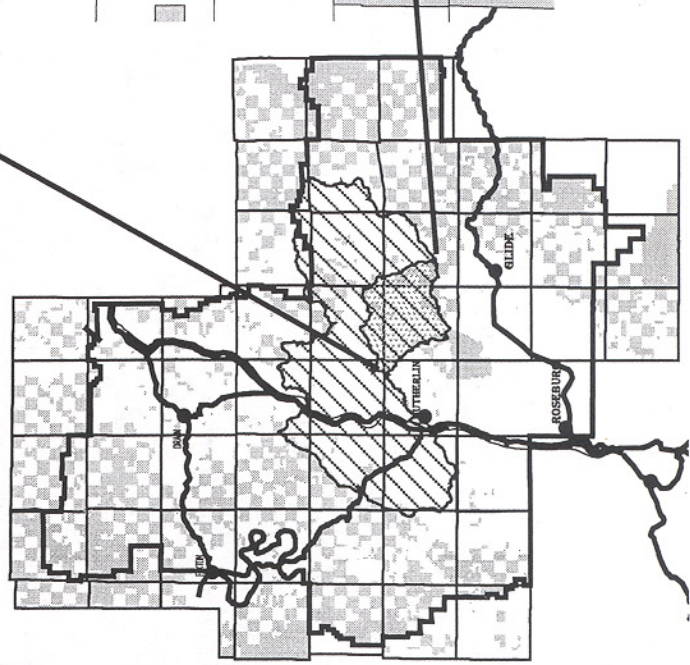
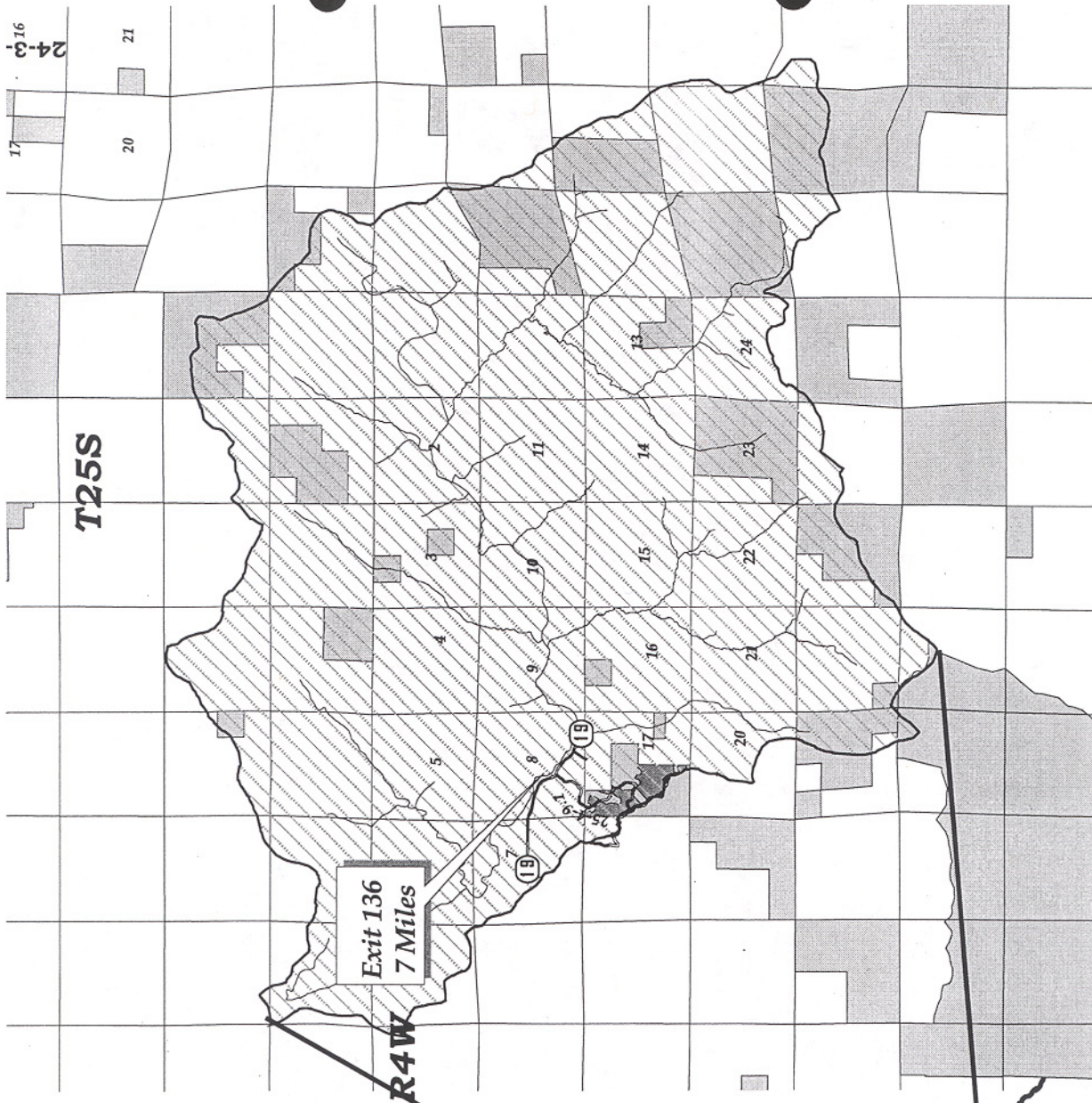
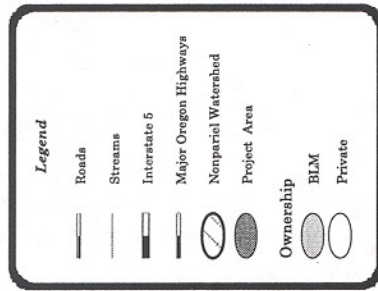
 **Bonanza Commercial Thinning**



Appendix B

Tract Map

FY2001 Thinnings
Bonanza Commercial Thinning



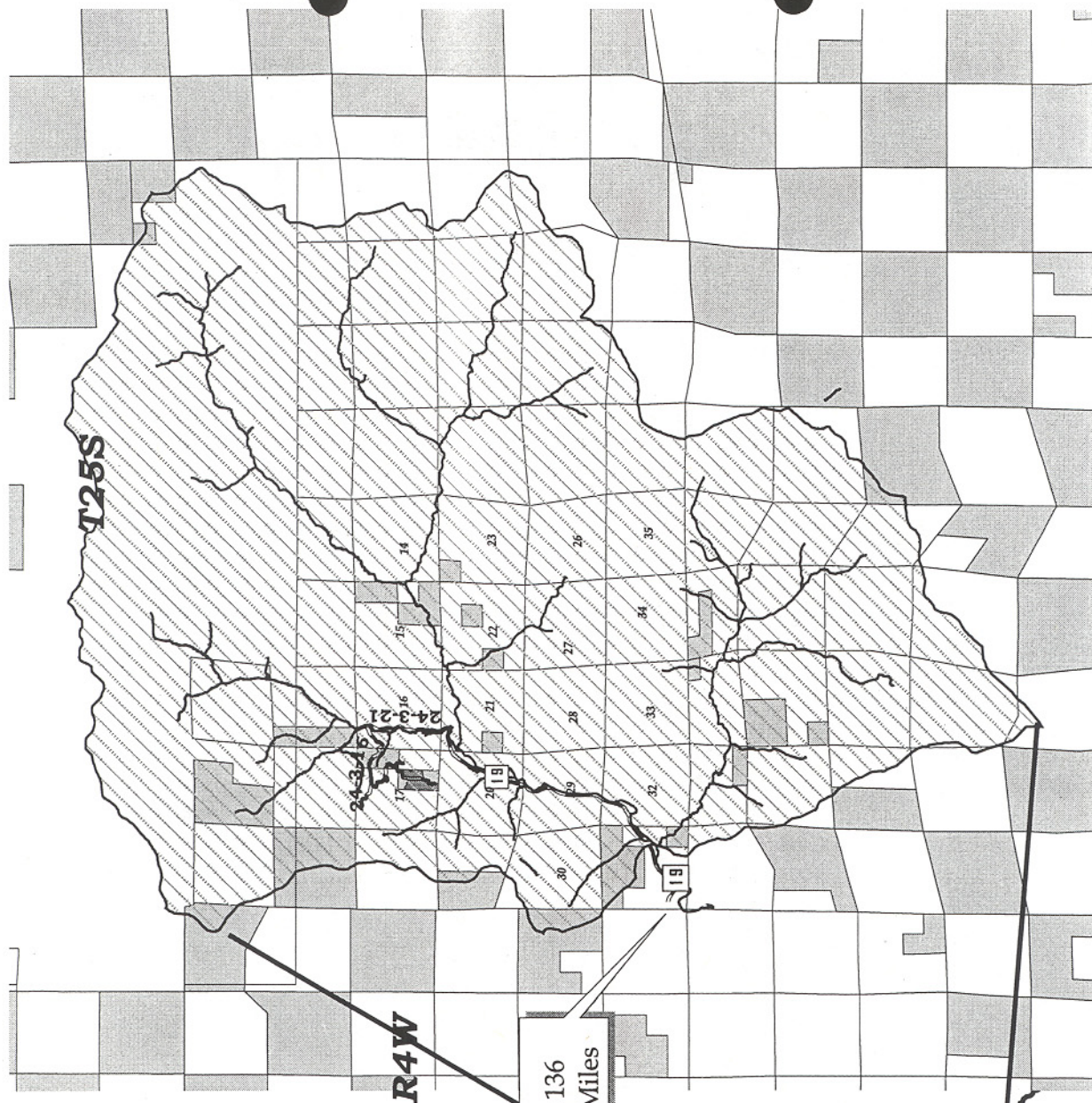
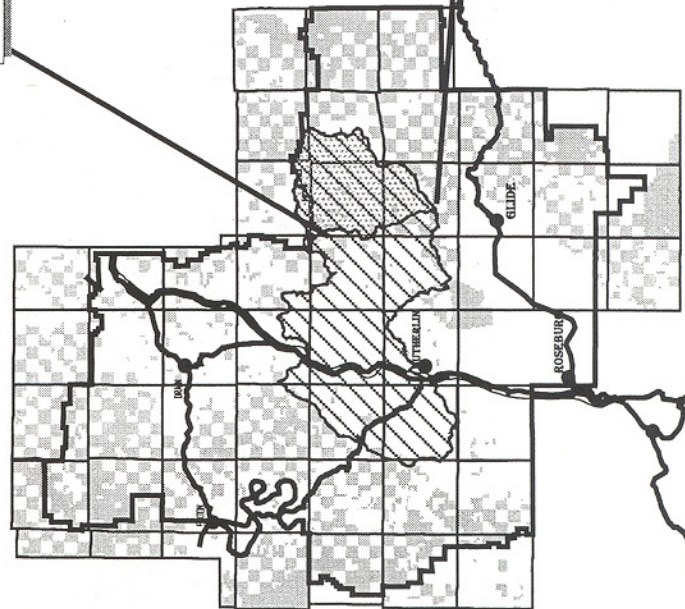
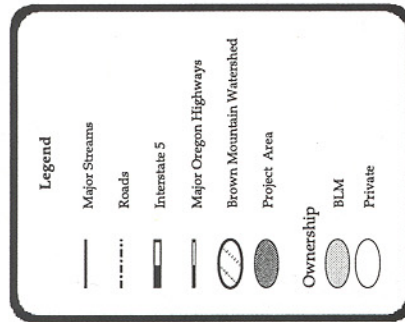
No warranty is made by the Bureau of Land Management as to the accuracy, completeness, or timeliness of these data or the results of any operation performed with these data. Original data are from the National Map Accuracy Standards. This information may be updated without notification.



Appendix B

Tract Map

FY2001 Thinnings
Timothy Ridge Commercial Thinning



APPENDIX C

INDIVIDUAL UNIT DESCRIPTION

Project Summary Table

| EA Unit | Project Area | Acres | Yarding System (ac.) | | | Fuel Treat. | Remarks |
|---------|--------------|-------|----------------------|----------|---------|-------------|---------------|
| | | | Aerial | Cable | Ground | | |
| | | 111 | | OES(109) | ROW (2) | P&BL | Bonanza |
| | | 46 | | OES (45) | ROW (1) | P&BL | Timothy Ridge |
| Total | | 157 | | 154 | 3 | - | |

Yarding System

OES = Cable Yard, One End Suspension Required

ROW = Ground Based, Yarding of Road Right of Way Timber

Fuel Treatment

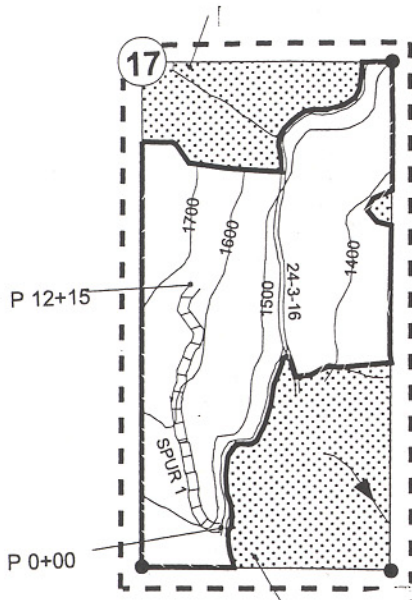
P&BL = Pile and Burn Landings

Narrative Description of Sale Location:

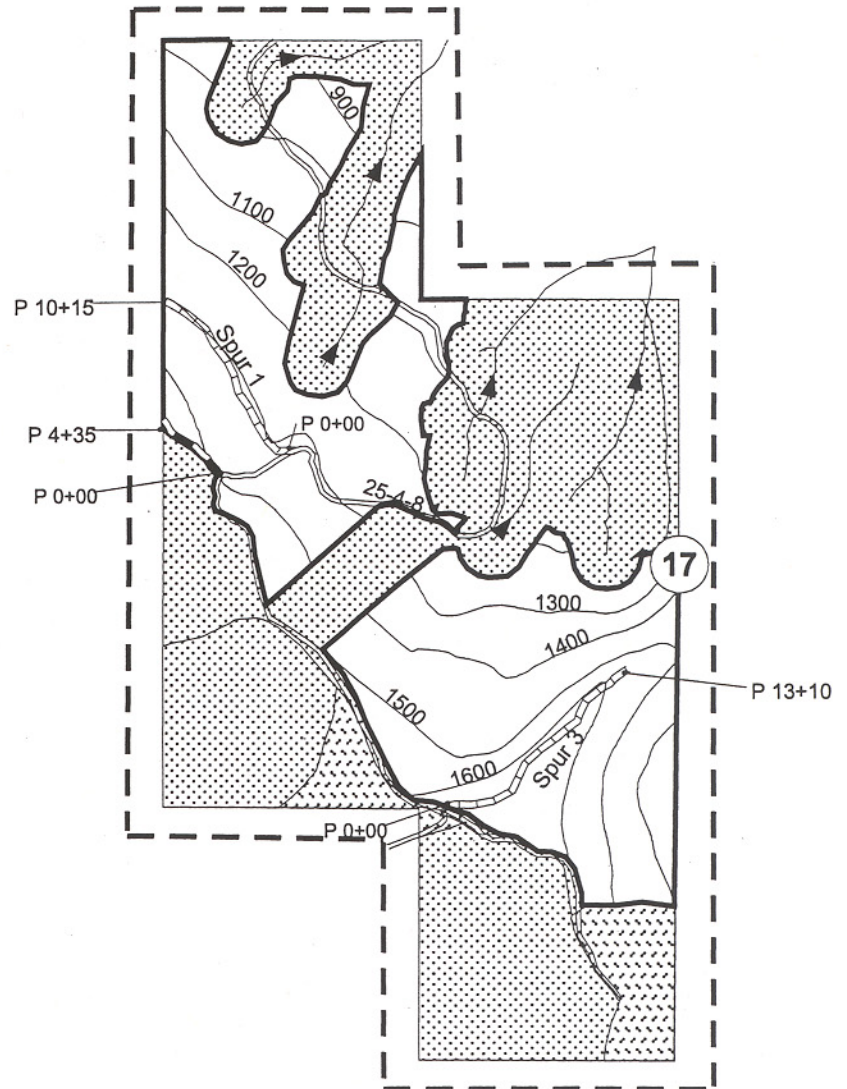
Bonanza - From I-5 Exit 136 in Sutherlin proceed east on County Road 19 (Central St.) approximately 8.2 miles to BLM Road # 25-4-8.1 (locked gate). From this point follow the Exhibit B map to the sale area.

Timothy Ridge - From I-5 Exit 136 in Sutherlin proceed east on County Road 19 (Central St.) approximately 17.5 miles to BLM Road # 24-3-21.0 (end of County road). Proceed north (left) on Rd# 21.0 (locked gate) approximately 1.1 miles to BLM Road # 24-3-16.0. Turn left (west) and follow the Exhibit B map approximately 1.3 miles to the sale area.

TIMOTHY RIDGE CT




BONANZA CT



LEGEND

Scale: 1"= 1000 Ft.

-  Proposed Harvest Area- Cable Yarding
-  Young Growth Forest (<80 years)
-  Mature Forest (>80 years)
-  Stream

-  Road to be Renovated
-  Existing Road
-  Temporary Spur -To Be Constructed, Used & Decommissioned in Same Season
-  Boundary of Project Area

APPENDIX D

ISSUE IDENTIFICATION SUMMARY

This appendix summarizes the issues that were identified pertinent to this project. No further analysis was deemed necessary in that the mitigations called for were considered adequate to remove the issue from needing to be analyzed in the main body of the EA.

A. Issues Identified During Project Design

The following issues were identified during project design. These issues arose from Specialist input as well as public comments that were received. A given issue can be eliminated from further analysis for one or more of the following reasons: (1) it is beyond the scope of this analysis, (2) the impacts were anticipated and analyzed in the FEIS, (3) Project Design Feature's (PDF's) included in the preferred alternative would be adopted to mitigate the anticipated environmental impacts of specific activities, and (4) the issue does not meet the objectives and purpose of the project. Section II, paragraph C (pg. 4) provides a list of specific PDF's incorporated into the preferred alternative to deal with these issues.

Issue #1: The project should be designed so as to result in a "No Effect" (NE) or "Not Likely to Adversely Affect" (NLAA) Biological Opinion from the NMFS.

Discussion: Due to the ruling of the U.S. District Court in Seattle (September 29, 1999), NMFS Biological Opinions have been ruled as invalid and any project would not be consulted by NMFS unless it would result in a NE or NLAA effects determination.

Mitigation: 1. No harvesting in Riparian Reserves.
 2. No permanent road construction.
 3. No activities (such as culvert replacement) would occur within stream channels.

Public Issues:

No comments were received from public entities during the issue identification opportunity provided during the preparation of this EA.

B. Issues Specified by Regulation

"Critical Elements of the Human Environment" is a list of elements specified in BLM Handbook H-1790-1 that must be considered in all EA's. These are elements of the human environment subject to requirements specified in statute, regulation, or Executive Order. These elements are as follows:

1. Air Quality
2. Areas of Critical Environmental Concern (ACEC)
3. Cultural Resources
4. Environmental Justice
5. Farm Lands (prime or unique)
6. Floodplains
7. Invasive, Nonnative Species
8. Native American Religious Concerns
9. Threatened or Endangered Species
10. Wastes, Hazardous or Solid
11. Water Quality, Drinking / Ground
12. Wetlands / Riparian Zones
13. Wild and Scenic Rivers
14. Wilderness

These resources or values (except item #9) were not identified as issues to be analyzed because: (1) the resource or value does not exist in the analysis area, or (2) no site specific impacts were identified, or (3) the impacts were considered sufficiently mitigated through adherence to the NFP S&G's and RMP Management Actions/Direction therefore eliminating the element as an issue of concern. These issues are also briefly discussed in Appendix E ("Critical Elements of the Human Environment"). Item #9 is addressed in the Specialist's Reports (Appendix F) and the Biological Assessment which is prepared for consultation required by the Endangered Species Act.

C. Issues to be Analyzed

The Interdisciplinary Team did not identify any issues as having sufficient potential affect that would warrant detailed analysis as a key issue to be addressed in Section IV, "Environmental Consequences".

APPENDIX E

CRITICAL ELEMENTS OF THE HUMAN ENVIRONMENT

| <i>Element</i> | <i>Relevant Authority</i> | <i>Environmental Effect</i> |
|--|--|--|
| <i>Air Quality</i> | <i>The Clean Air Act (as amended)</i> | <i>Temporary smoke intrusion into populated areas is possible but not likely. Dust particles may be released into airshed as a result of road construction /renovation and timber hauling.</i> |
| <i>Areas of Critical Environmental Concern</i> | <i>Federal Land Policy and Management Act of 1976 (FLPMA)</i> | <i>Project area is not within or near a designated or candidate ACEC</i> |
| <i>Cultural Resources</i> | <i>National Historic Preservation Act (as amended)</i> | <i>"No Effect " - See SHPO Report 10/25/00</i> |
| <i>Environmental Justice</i> | <i>E.O. 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations</i> | <i>Minority and low-income populations would not be adversely or disproportionately effected by this action.</i> |
| <i>Farm Lands (prime or unique)</i> | <i>Surface Mining Control and Reclamation Act of 1977</i> | <i>"No discernable effects are anticipated" (PRMP pg. 1-7).</i> |
| <i>Floodplains</i> | <i>E.O. 11988, as amended, Floodplain Management, 5/24/77</i> | <i>Project is not within 100 year floodplain.</i> |

| <i>Element</i> | <i>Relevant Authority</i> | <i>Environmental Effect</i> |
|---|---|--|
| <i>Invasive, Nonnative Species</i> | <i>Lacey Act (as amended) Federal Noxious Weed Act of 1974 (as amended) Endangered Species Act of 1973 (as amended) E.O. 13112, Invasive Species, 2/3/99</i> | <i>"The consequences of incorporating these proposed mitigation measures into the proposed project would likely reduce the probability of spreading noxious weeds..." (Specialist Reports 3/12/01 & 3/29/01)</i> |
| <i>Native American Religious Concerns</i> | <i>American Indian Religious Freedom Act of 1978</i> | <i>No concerns were noted as the result of public contact.</i> |
| <i>Threatened or Endangered Species</i> | <i>Endangered Species Act of 1973 (as amended) The Pacific Coast Recovery Plan for the American Peregrine Falcon, 1982 Columbian White-tailed Deer Recovery Plan, 1983 Recovery Plan for the Pacific Bald Eagle, 1986 Recovery Plan for the Marbled Murrelet, 1997 Biological Opinion and Conference Opinion - Implementation of Land and Resource Plans (USFS) and Resource Management Plans (BLM), March 18, 1997 [NMFS]</i> | <i>Botanical - No T&E species noted (Specialist Reports 3/12/01 & 3/29/01). Fish - "Not likely to adversely affect Oregon Coast coho salmon" (Biological Assessment). Wildlife - Not likely to pose an adverse affect to of the spotted owl, murrelet, or bald eagle and is not likely to adversely modify spotted owl or murrelet critical habitat. (Biological Assessment). T&E species not specifically mentioned do not exist in the analysis area.</i> |

| <i>Element</i> | <i>Relevant Authority</i> | <i>Environmental Effect</i> |
|---|--|--|
| <i>Wastes, Hazardous or Solid</i> | <i>Resource Conservation and Recovery Act of 1976, as amended Comprehensive Environmental Response, Compensation, and Liability Act of 1980 as amended</i> | <i>Applicable HazMat policies would be in effect. HAZMAT Level 1 Site Survey indicates no hazardous materials within the project area.</i> |
| <i>Water Quality, Drinking / Ground</i> | <i>Safe Drinking Water Act as amended Clean Water Act of 1977</i> | <i>Project is not in a municipal watershed or near a domestic water source.</i> |
| <i>Wetlands/Riparian Zones</i> | <i>E.O. 11990, Protection of Wetlands, 5/24/77</i> | <i>"The selected alternative [of the FEIS] complies with [E.O. 11990]..."(ROD p. 51, para.7)</i> |
| <i>Wild and Scenic Rivers</i> | <i>Wild and Scenic Rivers Act (as amended) The North Umpqua Wild and Scenic River Plan (July 1992)</i> | <i>Project is not within the North Umpqua Scenic River corridor.</i> |
| <i>Wilderness</i> | <i>Federal Land Policy and Management Act of 1976 Wilderness Act of 1964</i> | <i>"There are no lands in the Roseburg District which are eligible as Wilderness Study Areas." (RMP pg. 54)</i> |

OTHER RESOURCES CONSIDERED

| <i>Resource</i> | <i>Environmental Effect / Concerns</i> |
|--|---|
| <i>Land Use (leases, grazing , domestic water use, etc.)</i> | <i>Project has no conflicting land uses (Specialist 's Report 2/2/01). Roads are encumbered under Right-of-Way Agreement # R-957 (Weyco) and # R-763P (Juniper Ltd. Prop.) No registered domestic water use.</i> |
| <i>Minerals</i> | <i>Project has no mining claims (Specialist 's Report 5/21/01).</i> |
| <i>Recreation</i> | <i>The proposed Timber Sale is not located in the vicinity of any recreation sites.</i> |
| <i>Visual</i> | <i>The project areas are classified VRM IV [(least restrictive category)]. This classification allows for management activities. The level of change to the characteristic landscape can be high. Every attempt should be made to minimize impacts, disturbances, and the repetition of basic elements.</i> |
| <i>Other (Adjacent Landowners)</i> | <i>Four small adjacent landowners are in the vicinity of this sale.</i> |

APPENDIX F

ANALYSIS FILE

This Appendix contains the background information that went into the development of this EA. This information is filed in reverse chronological order. Some of this information is of a preliminary nature and was compiled prior to complete or final information. The first section consists of the Project Initiation Letter and Interdisciplinary Team Meeting Minutes. The second part contains the Staff Reports and any outside analysis done by other entities.

ID Team Sign Off Sheet

Each member has reviewed this EA and certifies that their Specialist input has been considered and properly documented.

| Name | Title | Resource/Discipline | Initials | Date |
|---------------|---|----------------------------------|----------|---------|
| Isaac Barner | Archeologist | Cultural Resources | HAB | 5/16/01 |
| Bruce Baumann | Layout Forester / Project Lead | Sale Layout | BCB | 5/17/01 |
| Liz Berger | Wildlife Biologist | Wildlife | WB | 5-15-01 |
| Dan Cressy | Soil Scientist | Soils / Hydrology | DCC | 5-15-01 |
| Craig Holt | Presale Forester | Timber | CRH | 5-17-01 |
| Mike Howard | Engineer | Road Engineering (Timothy Ridge) | MHW | 5-18-01 |
| Pete Howe | Engineer | Road Engineering (Bonanza) | PH | 5/16/01 |
| Al James | Silviculturalist | Silviculture | AJ | 5-15 |
| Evan Olson | Natural Resources Specialist | Botany (Timothy Ridge) | EO | 5/15/01 |
| Garth Ross | Fisheries Biologist | Fisheries | GAR | 5/15/01 |
| Jeff Wall | Environmental Coordinator / EA Preparer | NEPA | JW | 5/21/01 |
| Ron Wickline | Botanist | Botany (Bonanza) | RW | 5-15-01 |